



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,913	06/26/2001	Tara Chand Singhal	11195.33	1401
7590 Tara Chand Singhal P.O. Box 5075 Torrence, CA 90510		EXAMINER MONFELDT, SARAH M		
		ART UNIT 3694		
		MAIL DATE 11/09/2011		
		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* TARA CHAND SINGHAL

---

Appeal 2010-011078  
Application 09/891,913  
Technology Center 3600

---

*Before:* ANTON W. FETTING, BIBHU R. MOHANTY, and  
MICHAEL W. KIM, *Administrative Patent Judges.*

KIM, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 106-124. We have jurisdiction to review the case under 35 U.S.C. §§ 134 and 6 (2002).

The claimed invention is directed to systems and methods for facilitating payment transactions to merchants using existing bankcards and bank accounts of a customer, and more specifically, for protecting the privacy and private data of a customer in data storage and during transactions (Spec. 1:21-25). Claim 106, reproduced below, is further illustrative of the claimed subject matter.

106. A method of protecting from theft and misuse bankcard data from merchant computer systems and securely selecting any one of a plurality of bankcards of a customer at a merchant point of sale interface for a payment transaction to a merchant comprising the steps of:

a. enabling selecting a debit card transaction requiring entry of a PIN in a merchant point of sale (POS) interface, enabling entering of (i) a customer identifier, without customer identity data, by a payment card that encodes the customer identifier and (ii) a bankcard specific personal identification number (CPIN) in the merchant point of sale (POS) interface;

b. enabling sending the customer identifier and the CPIN to an adapted prior art merchant gateway, along with the payment transaction data that includes a merchant identifier and a payment amount;

c. interfacing by the adapted prior art merchant gateway with a payment card system, and sending to the payment card system the customer identifier and the CPIN;

d. having stored customer bankcard data in the payment card system, wherein, each bankcard is identified with a separate CPIN, identifying a particular bankcard data of the customer and verifying the customer by the bankcard specific CPIN in the payment card system;

e. returning to the adapted prior art merchant gateway the bankcard data corresponding to the customer identifier and the CPIN from the payment card system;

f. assembling by the adapted prior art merchant gateway, a payment transaction record to include the bankcard data from the payment card system and the payment transaction data, and by submitting the payment transaction record to a bankcard authorization network, wherein the method does not transfer bankcard identity data to the merchant computer systems.

The Examiner relies upon the following prior art:

Low	US 5,420,926	May 30, 1995
Duyck	US 5,557,087	Sep. 17, 1996
Rose	US 5,770,843	Jun. 23, 1998
Albert	US 5,870,722	Feb. 9, 1999
Campisano	US 6,227,447 B1	May 8, 2001
Gillin	US 7,254,557 B1	Aug. 7, 2007

Claims 106-108 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Campisano, Duyck, and Low; claims 109, 110, 114, and 123 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rose; claims 111, 112, 115, and 116 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Campisano; claim 113 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Campisano and Low; claim 117 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Low; claims 118-120 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Albert and Duyck; claim 121 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Albert, Duyck, Campisano, and Gillin; claim 122 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of

Albert, Duyck, Campisano, and Gillin; and claim 124 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Rose in view of Campisano and Low.

We AFFIRM-IN-PART.

### ISSUES

Did the Examiner err in asserting that a combination of Rose, Campisano, Duyck, and Low render obvious independent claim 106?

Did the Examiner err in asserting that Rose renders obvious independent claims 109, 114, and 123?

### FINDINGS OF FACT

We adopt the Examiner's findings of fact concerning independent claims 106, 109, and 114, as set forth on pages 4-6, 9-13, and 29-40 of the Examiner's Answer.

### ANALYSIS

#### *Independent Claim 106*

We are not persuaded the Examiner erred in asserting that a combination of Rose, Campisano, Duyck, and Low render obvious independent claim 106 (App. Br. 10-24; Reply Br. 6-19). Appellant asserts that

[w]hat Rose [and Campisano do] not teach and the distinguishing feature of the claimed subject matter payment card system is that in the claimed subject matter, a payment card system database that maintains customer bank account data

does not return the customer bank data to the merchant ATM/POS and to the merchant systems for creation of a payment authorization record.

(App. Br. 11; Reply Br. 8-9, 12-14). However, Low is cited for disclosing this aspect (Exam'r's Ans. 6). *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (the argument that a single reference alone does not disclose the recited claimed steps is not persuasive because nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures); *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) ("one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references"). Appellant then asserts that it "would be impossible in Rose/Campisano for the Merchant POS to not have the customer id and bankcard data as they assemble this payment authorization request record and send this record to a prior art merchant gateway" (Reply Br. 13). However, Low explicitly discloses an intermediary for maintaining customer "anonymity," and we are not persuaded it would have been impossible to insert this intermediary into the system of Rose/Campisano.

Appellant asserts that a combination of Rose and Campisano does not render obvious "a customer identifier, without customer identity data," as recited in independent claim 106 (App. Br. 11, 13; Reply Br. 11). Under a broadest reasonable construction in view of the Specification, customer identity data can include any combination of, including just one of, the customer's "name, the customer address, the card number(s) of the existing bank cards 31 of the customer 20 and/or the expiration date of the existing bank cards 31 of the customer 20" (Spec. 7:5-8; 16:24-17:7). *See In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) ("[d]uring

examination [of a patent application, a pending claim is] given [the] broadest reasonable [construction] consistent with the specification, and ... claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art”) (internal citation and quotations omitted). We agree with the Examiner that column 2, lines 1-3 and 15-23 of Rose disclose a customer identifier that does not include at least the card owner’s name and account number, thus corresponding to the recited “customer identifier, without customer identity data” (Exam’r’s Ans. 29-30).

Appellant asserts that a combination of Rose and Campisano does not render obvious a “customer identifier ... encoded by reference to an algorithm to make even the customer identifier to be not on the card itself, but an encoded customer identifier, encoded in a specific manner that embeds a reference to an algorithm after the customer identifier is encoded with this specific algorithm” (App. Br. 13-14). However, such as aspect is not set forth in independent claim 106, which only recites “a customer identifier, without customer identity data, by a payment card that encodes the customer identifier.” We agree with the Examiner that placing the customer identifier as a machine-readable code on a card, as disclosed at column 2, lines 1-3 and 15-23 of Rose, corresponds to the recited encoding of the customer identifier.

Appellant asserts that because the cited references were not directed to solving the same problem as Appellant, the claimed subject matter is non-obvious (App. Br. 11, 14-16, 22; Reply Br. 6-8, 12, 14-17, 19). However, we are not aware of any case law setting forth such a requirement for obviousness. Indeed, *Graham v. Deere*, 383 US 1 (1966) recites that for a

proper obviousness analysis “[u]nder § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *Id.* at 17. There is no mention of problems. To that end, Appellant is misinformed as to the first of leg of the inquiry of *Graham v. Deere*. Determining the scope and nature of the claim is only relevant as to determining the scope and nature of the specifically recited claims aspects. Any alleged problems solved are irrelevant to the analysis, because if the cited combination of references renders obvious each aspect of the claim, then the cited combination is inherently deemed to solve the same problem as Appellant.

To the extent that Appellant is arguing that the Examiner’s rationale for combining the references must coincide with Appellant’s problem, we note that “any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007).

To the extent that Appellant is asserting non-analogous art, which may include an analysis of the problems to be solved, we remind Appellant that the analogous arts test is a two-part test: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. *See In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Here, we have no trouble finding that the claimed invention, Rose, and Campisano all meet both prongs of the test: authentication of card and

PIN based merchant transactions. While this problem may not be the primary problem addressed by Appellant, prong (2) is met if it is a reasonably pertinent problem addressed by Appellant.

Appellant asserts that Low lacks certain aspects of the claimed invention (App. Br. 16-18). However, Low is only cited for disclosing “*wherein the method does not transfer bankcard identity to the merchant computer systems*” (Exam’r’s Ans. 6). Rose, Campisano, and Duyck are cited for disclosing the other aspects of independent claim 106 (Exam’r’s Ans. 4-6). *See In re Merck & Co. Inc.*, 800 F.2d at 1097; *In re Keller*, 642 F.2d at 426.

Appellant asserts that the Examiner misapplied a broadest reasonable construction to certain aspects of independent claim 106 (App. Br. 23-24). However, Appellant has not set forth a detailed, technical analysis as to how the Examiner erred. In the absence of such an analysis, we will sustain this rejection. *See In re Keller*, 642 F.2d at 425 (“[o]nce a prima facie case of obviousness [is] established..., the burden shift[s] to appellant to rebut it”).

Appellant asserts that unlike the prior art, “the claimed subject matter does not rely nor use or make any modification to the existing POS in recognition of the humungous logistics and cost of modifying merchant POS throughout the globe where merchants accept bankcards” (Reply Br. 9). However, such an aspect is not set forth in the claims. *See CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1231 (Fed. Cir. 2005) (while the specification can be examined for proper context of a claim term, limitations from the specification will not be imported into the claims). Regardless of whether the prior art systems do or do not make such modifications, if the

Examiner sets forth a combination of prior art corresponding to each recited aspect, the claim is rendered obvious.

Appellant asserts that unlike the claimed adapted prior art merchant gateways, “Rose and Campisano do not teach, suggest or make any change to these routing gateways” (App. Br. 14-16; Reply Br. 10, 13, 18).

Appellant then asserts several features that the prior art merchant gateways lack, however, none of these features are set forth in the claims. *See CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d at 1231.

Appellant asserts that the prior art lacks a card database including certain features (Reply Br. 10-11). However, independent claim 106 does not recite a card database.

*Independent Claims 109, 114, and 123*

We are partially persuaded the Examiner erred in asserting that Rose renders obvious independent claims 109, 114, and 123 (App. Br. 10-24; Reply Br. 9-19). Appellant asserts that Rose does not render obvious a “customer identifier ... encoded by reference to an algorithm to make even the customer identifier to be not on the card itself, but an encoded customer identifier, encoded in a specific manner that embeds a reference to an algorithm after the customer identifier is encoded with this specific algorithm” (App. Br. 13-14; Reply Br. 14, 18-19). However, the Examiner asserts that

[e]ven though Rose does not explicitly state “algorithm”, Rose teaches a code contained in the magnetic stripe that is transmitted to the remote database management software, causing the software to fetch account numbers and PINs which are associated with the code. One of ordinary skill in the art would have been motivated to include the embedded code,

remote database with associated software since the associated code and software fetch account numbers and PINs which are associated with that code embedded in the magnetic stripe of the card.

(Exam'r's Ans. 33-44). With respect to independent claims 109 and 114, we find no error with the Examiner's reasoning. Although Appellant may have intended for the algorithm to be more akin to cryptography as opposed to embedding code on a magnetic stripe, such an aspect of the limitations is not set forth in independent claims 109 and 114. *See CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d at 1231.

We do find Examiner error, however, with respect to independent claim 123, which recites "the customer identifier is encoded to be an encoded customer identifier when encoded with an algorithm from a list of such algorithms in a database maintained by the payment security system and then embeds a reference code that references the algorithm." The Examiner has not shown how the customer identifier embedded on the magnetic stripe of Rose renders obvious either (1) a database containing a list of algorithms, or (2) an embedded code, separate from the encoded customer identifier, that references one of those algorithms.

Appellant asserts that Rose does not render obvious "a customer identifier that is without customer identity data," as recited in independent claims 109 and 114 (App. Br. 11, 13; Reply Br. 11). However, as elaborated above, column 2, lines 1-3 and 15-23 of Rose disclose a customer identifier that does not include at least the card owner's name and account number, thus corresponding to the recited "customer identifier that is without customer identity data" (Exam'r's Ans. 29-30).

Appellant asserts that because the cited references were not directed to solving the same problem as Appellant, the claimed subject matter is non-obvious (App. Br. 11, 14-16, 22; Reply Br. 6-8, 12, 14-17, 19). Those concerns have been addressed above in the analysis of independent claim 106.

Appellant asserts that

the current application claims 106, 109, 114, 123 and their dependent claims, protect the customer id data from theft and misuse from the merchant computer systems themselves, while enabling a payment transaction with the help of the same merchant computer systems, including the existing POS interfaces, by not transferring customer identity and bankcard data to merchant computer systems in the first place.

(App. Br. 14). However, only independent claim 106 specifically recites not transferring customer identity and bankcard data to merchant computer systems. *See CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d at 1231.

Appellant asserts that the prior art lacks a card database including certain features (Reply Br. 10-11). However, independent claims 109 and 114 do not recite a card database.

#### DECISION

The rejection of claims 106-122 is AFFIRMED.

The rejection of claims 123 and 124 is REVERSED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

Appeal 2010-011078  
Application 09/891,913

hh